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August 23, 1995

Project Number 0206

Mr. Jim Colter (Code 1823)
Remedial Project Manager
Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, MS#82
Lester, Pennsylvania 19113

Reference Clean Contract No N62472-90-D-1298,
 Contract Task Order No 0138

Subject Final RCRA Facility Investigation Report
 NWIRP Calverton, New York

Dear Mr. Colter

Please find enclosed four copies of the subject report for your use. This report incorporates TRC comments as indicated in the attached comment/response letter. As requested, copies have been forwarded to TRC members as per your transmittal letter (attached).

If have any questions or require additional information, please call me at (412) 921-8375

Sincerely

A handwritten signature in dark ink, appearing to read "David D. Brayack", is written over the typed name.

David D. Brayack, P.E.
Project Manager

/DDB

cc. Mr. R. Boucher (Navy) w/o attachment
 Mr. D. Rule (Navy) w/o attachment
 Mr. J. Trepanowski (HNUS)
 Mr. D. Hutson (HNUS)
 Mr. J. Farrell (HNUS) w/o attachment
 File 0206

**RESPONSES TO
COMMENTS ON THE DRAFT RCRA FACILITY INVESTIGATION (RFI) FOR
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
CALVERTON (NWIRP CALVERTON), NEW YORK, JUNE 1995**

New York State Department of Environmental Conservation

Specific Comments:

1. **Comment:** Page 4-103 (Table 4-25) The inorganics table should include surface and subsurface analytical results. Does the value for chromium represent total chromium?

Response Table 4-25 includes both surface and subsurface analytical results for organic chemicals. For the inorganics chemicals, only the specific metals and locations (surface or subsurface) determined to be at concentrations above background are presented. The results are then qualified as such.

The chromium results presented are total.

2. **Comment:** Page 4-104 (Table 4-26) The NYS Groundwater Quality Standard for hexavalent chromium for class GA waters is 50 ppb.

Response: This standard will be added to the table.

3. **Comment:** Page 5-115 (Table 5-19) The NYS Groundwater Standard for phenol (total)-phenolic compounds is 1 ppb. Does the value for chromium represent total chromium?

Response: Table 5-19 will be revised to reflect the standard for total phenolics at 1 ug/l. The number of exceedances will be revised as follows:

phenol:	1/11
2-methyl phenol:	2/11
4-methyl phenol:	2/11
2,4-methyl phenol	2/11

The chromium results presented are total.

4. **Comment:** Page 6-60 The text states that VOC contamination was found in groundwater samples taken from MW-02 (1,1,1 TCA at 15 ppm). The findings, in our opinion, represent a significant source of VOC contamination possibly in the area of the paint shop which should be further investigated. A minimum of 4 monitoring wells need to be installed to delineate the vertical and horizontal extent of the VOC contamination. We do not agree that the recommended installation of one monitoring well will adequately define the extent of the VOC plume.

Response: The Navy agrees that 15 ppm represents a significant level of contamination and that the paint shop is a possible source of the chlorinated VOCs. The paint shop is discussed as a possible source area in the conclusion section (Section 6.7) as follows.

"Based primarily on temporary monitoring well testing, relatively minor source areas were, or are, present at the site including potentially the paint shop area to the northwest and

the current fuel calibration area to the northeast. These two potential source areas are based on groundwater data only, and as a result the source area may not be present."

The data used to support this conclusion statement are the soil gas results (Page 6-36) and the temporary monitoring well results (Pages 6-12 and 6-58). The soil gas results for TCA, as presented in Appendix N (see also Figure 6-2), are summarized as follows.

<u>Location</u>	<u>TCA conc.</u>	<u>Comments</u>
6A-1B	ND = <1 ug/l	soil gas point is west (upgradient) of MW-02
6A-2B	2.2 ug/l	soil gas point is northwest (upgradient) of MW-02
6A-3B	1,180 ug/l	location of MW-02
6A-41B	ND	northwest of MW-02, near paint shop
6A-36B	1.7 ug/l	north of MW-02, near paint shop
6A-42B	ND	north of MW-02, near paint shop
6A-47B	ND	north of MW-02, near paint shop

These deep (near the water table) soil gas results provide evidence that the TCA contamination is localized to the area of MW-02 and that it is likely that the paint shop is not a current, or at least continuing, source of the TCA contamination. The temporary monitoring well data in this area is more limited, but this data also supports the conclusion statement. In particular Temporary Monitoring Well 07, which is located southeast of the paint shop and northwest of MW-02, was measured to have a TCA concentration of 3.7 ug/l.

The one well proposed in the RFI is intended to more fully define the downgradient border. As discussed during a teleconference between Halliburton NUS and NYSDEC on August 3, 1995, NYSDEC's concern is primarily in the area of the paint shop and the request for additional wells is intended to better define this area.

Please note that the paint shop is not an IR site. However, it is being investigated by Grumman under an Environmental Baseline Survey (EBS) for the facility. Based on the conclusions and recommendations of the EBS, Grumman is proposing to install 5 new monitoring wells in and around the paint shop/paint stripping area.

Note that the above referenced quote from Section 6.7 is being revised as follows. "Based primarily on temporary monitoring well testing, two potential source areas of this contamination were, or are, present at the site and include the paint shop area to the northwest and/or the current fuel calibration area to the northeast."

5. **Comment:** Page 6-81 (Table [6-17]) See above comment for Page 5-115.

Response: Table 6-17 will be revised to reflect the standard for total phenolics at 1 ug/l. The number of exceedances will be revised as follows.

phenol:	1/10
2-methyl phenol:	1/10
4-methyl phenol:	1/10
2,4-methyl phenol:	1/10

Chromium is not a chemical of concern at Site 6A.

6. **Comment:** Page 7-1 The size of the underground storage tanks should be stated in the text. The tanks should also be depicted on site maps.

Response. The following will be added to the third paragraph on page 7-1. "Historically, seven tanks (06-12-1 through -7) ranging in size from 4000 to 5000 gallons for gasoline to 15,000 gallons for JP-4 and JP-5 were present at the fuel depot. These tanks have been removed. Currently four tanks (06-12-11 through -15) are present and active, see Figure 7-1. Two of the tanks are used for diesel (10,000 and 15,000 gallons), one tank is used for gasoline (10,000 gallons), and one tank is used for aviation gas (20,000 gallons)

7. **Comment.** Page 7-57 See previous comment for Page 5-115.

Response: Table 7-16 will be revised to reflect the standard for total phenolics at 1 ug/l. The number of exceedances will be revised as follows

4-methyl phenol:	1/10
2,4-methyl phenol:	1/10

Chromium is not a chemical of concern at Site 7

General Comment:

- 8 **Comment:** The report indicates that the fuel depot area (site 7) has mostly been impacted with petroleum hydrocarbons and as such, this area will be referred to the Region 1 Oil Spills Program for remediation as an oil spill.

The report also states that floating free product has been found and is being recovered from areas 2, 6A and 7. The description and location of the product recovery system should be included in the text. It should also be indicated how much product has been recovered, if the product has been analyzed and the results of the analysis.

Response. The Navy concurs with the decision to refer this site to the State's Oil Spill Response Program, as the contamination at this site is only related to petroleum products, which are not considered to be hazardous substances as defined in the NCP. As a result, this site should be exempt from possible inclusion under the CERCLA/RCRA hazardous substance response process.

Since this site is now to be regulated under the state's Oil Spills Program (and not the Hazardous Waste Remediation Program) and unless the Oil Spills Program has a similar requirement, the Navy would like to delete this site from the Corrective Measures Study (CMS) currently being prepared. As a result, the CMS would only address those sites that contain substances that are considered hazardous, (Sites 1, 2, and 6A). In addition, the Navy would like to coordinate all future investigations and remedial decisions for Site 7 through the state's Oil Spills Program.

Descriptions of the product recovery systems are provided in the Site Background and Physical Setting for each site. Records on the quality and quantity of free product are limited. Available analytical results are presented in the Site Investigation Report (April 1992) for the facility. The following statements will be added to the Site Background and Physical Setting section for each site.

Site 2: As of December 1993, approximately 270 gallons of petroleum product have been removed from this site.

Site 6A: As of December 1993, approximately 1200 gallons of petroleum product have been removed from this site.

Site 7: As of December 1993, approximately 110 gallons of petroleum product have been removed from this site

State of New York Department of Health
Timothy E. Vickerson

General Comments (Fire Training Area):

- 1 **Comment:** Past use of waste solvents for fire fighting training exercises has resulted in groundwater contamination at the southern border of the site. Well FT-MW-05s is contaminated with volatile organic compounds above the drinking water standards and groundwater standards. Since this well is on the southern border of the site and groundwater flow is in the southerly direction, it is probable the contamination has migrated off-site.

Response. The Navy agrees that offsite work is warranted and plans to pursue it when funding becomes available. This statement is reflected in the conclusion on Page 5-120.

- 2 **Comment:** The report does not include a description of the current land use(s) directly downgradient of the fire training area. Section 5 of the report should include a description of the current land use in the area and, if possible, future land uses. It should also include whether there are private or public water supplies downgradient that might become impacted.

Response. A description of the surrounding land use and the presence of offsite wells is provided in Section 3.0 Facility-Wide Environmental Setting. However, because of the location of this site near the facility boundary and the potential of offsite migration, the following statements will be added to the end of Section 5.1.

"The land use within approximately 1/2 mile south (hydraulically down gradient) of Site 2 includes a Grumman Office building, (with a potable water well), a golf course (with an unknown source of irrigation water), and an undeveloped wooded area. Grumman Corporation routinely samples their potable water well and to date, VOC contamination has not been identified in the well. There is no information available on the quality of the irrigation water."

- 3 **Comment.** I feel that further investigation of the groundwater is needed off-site in this area in the near future.

Response. Agreed. In the near future, the Navy plans to collect groundwater samples in the vicinity of the golf course to determine if there is evidence of offsite contamination and if there is any potential for exposure. The Navy also agrees that additional offsite work is warranted and plans to pursue it when funding becomes available.

United States Environmental Protection Agency, Region II
Carol Stein

Comments on the Draft RFI Report

1. **Comment:** Site 1 (Northeast Pond Disposal Area) - Page 4-113 indicates that 1,1,1-trichloroethane was detected at one location in the fill material at a concentration of 390 mg/kg, and that the sample included contents from a buried drum. Appendix J indicates that this reading is from test pit sample NPWST220405. A high concentration of 2-methyl naphthalene (370 ppm) was also found in the fill material at this test pit.

Although the groundwater samples did not show high concentrations for these constituents, the groundwater samples do not appear to be representative of the groundwater in the vicinity of the test pit in question. Figures 4-3 and 4-7 indicate that none of the four groundwater samples taken for the Northeast Pond Disposal Area were taken in the vicinity of Test Pit sample NPWST220405. Figure 4-7 indicates that the closest groundwater monitoring well, NP-MW-01, is approximately 125 feet west of Test Pit #22. This is not downgradient of the test pit (groundwater flow direction is toward the east-northeast), nor is it of adequate proximity to indicate whether or not the constituents from this test pit have migrated into the groundwater. Therefore, we require that one or more additional monitoring wells be placed downgradient of Test Pit #22 and in closer proximity to it, to allow for an evaluation of the potential for groundwater contamination.

Although the groundwater samples did not show high concentrations for 1,1,1-trichloroethane, the report does indicate that only shallow samples of groundwater were taken at Site 1. As chlorinated organic compounds tend to accumulate at the bottom of a water table, there is a possibility that dense non-aqueous phase liquids (DNAPLs) may be present. If you have not already done so, please evaluate the possible presence of DNAPLs. If you have already conducted this evaluation, we would be interested in reviewing the results.

Response: The following discussion is a summary of the Navy's DNAPL evaluation.

- With the exception of the one test pit sample, solvents were not detected at a significant concentration at this site. The groundwater testing also indicates that solvents are not a widespread problem at Site 1. Rather, the only evidence that chlorinated solvents are present at this site appears to be associated with minor leakage observed from the top of a 55-gallon drum admixed with underlying soils and only occurred at a isolated location near TP-22. Please note that this drum is being removed in the near future as a separate action.
- Based on the small quantity of drum contents released, the formation of a DNAPL would not be expected from this location. Also, when a DNAPL forms, a residue concentration of solvent in the shallow aquifer is present indicating its historic passage through this zone. The level of solvents detected in the shallow aquifer, as well as in the broader indicators of the pond sediments and surface water are not indicative of a release of larger quantities of solvents.

2. **Comment:** Site 2 (Fire Training Area) - On page 5-120, the text states that volatile organic compound contamination to the south (off site) and east is not completely characterized. Table 5-13 indicates that sample FT-GW05-S which was taken just north of the chain link fence at the south of the property, had concentrations of chloroethane at concentrations of 130 ug/l in the groundwater. As the NYSDEC groundwater standard is 5 ppb, it appears that since the groundwater flow at the Fire Training Area is to the south-

southeast, that there may be concentrations of chloroethane beyond the southern property boundary at levels considerably exceeding the NYSDEC groundwater quality standard. Therefore, it is important for you to characterize the groundwater beyond the boundary of the property as soon as possible. Module III, Section B.10 of your EPA HSWA Permit requires that you notify EPA, NYSDEC, and any person who owns or resides on the land which overlies the contaminated groundwater within 15 calendar days of discovery that contamination is found to have migrated beyond the facility boundary in concentrations that exceed groundwater standards.

Response: Agreed In the near future, the Navy plans to collect groundwater samples in the vicinity of the golf course to determine if there is evidence of offsite contamination and if there is any potential for exposure. The Navy also agrees that additional offsite work is warranted and plans to pursue it when funding becomes available.

With respect to the notification requirement of the permit, it is the Navy's position that, while contamination is likely to exist off site, it has not yet been confirmed. Therefore, the 15 day notification requirement is not yet applicable. Nevertheless, the Navy has every intention of notifying persons who own properties adjacent to the effected area in a timely manner. Initially, as part of an offsite investigation, the Navy would inform the property owners of the possibility of contamination and obtain written permission to install the monitoring wells. After receipt and evaluation of validated groundwater results, the Navy has every intention of meeting the 15 day notification requirement of the permit.

- 3 **Comment:** We agree with the conclusions which state that further investigation is needed. All additional sampling should be conducted as soon as is feasible. In reference to Area #6A, the Fuel Calibration Area, the conclusion of the RFI Report states that the Environmental Baseline Survey (EBS) should consider the groundwater locations requiring additional definition of extent of contamination. This is conditionally acceptable, provided that the EBS is performed in a timely manner, and that the time needed for compiling the conclusions of the EBS will not delay the implementation of corrective measures.

Response: Agreed. The Navy also agrees that additional offsite work is warranted and plans to pursue it when funding becomes available. See also the response to NYSDECs comment number 4

Minor Comment

- 4 **Comment:** The tables in Appendix J for the Northeast Pond disposal area show Sample Number: NPSD020501 and its duplicate. However, Table 4-[1]8 of the text shows Sample Number: NPSD020510 and its duplicate, with the same concentrations of constituents associated with it. The discrepancy in the numbering of these samples be corrected.

Response: Tables 4-18 and 4-19 will be revised as follows.

from	to
NP-SD01-0510	NP-SD01-0501
NP-SD02-0510	NP-SD02-0501
NP-SD02-0510-DU	NP-SD02-0501-DU
NP-SD03-0510	NP-SD03-0501
NP-SD04-0510	NP-SD04-0501

County of Suffolk
Sy. F. Robbins, C.P.G.

Executive Summary

1. **Comment:** The Executive Summary is overly long, and contains too much background information (e.g., on lithofacies).

Response. Because of the amount of information presented, it is the Navy's policy to provide an executive summary that is able to convey all of the critical information.

2. **Comment.** The Surface Water Hydrology and Hydrogeology sections should note that the NWIRP straddles the groundwater divide, so that the direction of shallow groundwater flow will vary from SE on the southern portion to E on the divide and NE on the northern portion of the site.

Response. The following sentence from Section 3.5 will be added to the executive summary on page ES-6 (under Hydrogeology). The NWIRP Calverton straddles a ground divide, with groundwater beneath the northern half flowing to the northeast and groundwater beneath the southern half flowing to the southeast. Groundwater on the divide, the location of which can fluctuate, flows to the east.

3. **Comment.** The Water Supply section should be revised to reflect the fact that the Shorewood Water Company was taken over by the Suffolk County Water Authority in 1993 (also page 3-7).

Response. The data for the Shorewood Water Company will be combined with the Suffolk County Water Authority. Also, the following statement will be added to the report. "Note that the Shorewood Water Company was combined with the Suffolk County Water Authority in 1993."

Northeast Pond Disposal Area

4. **Comment:** The conclusions on the northeast pond disposal area (pages ES-10 and 4-114) should be revised to reflect the new Federal MCL for total chromium (100 ug/l).

Response: The revised federal MCL for total chromium of 100 ug/l is already considered in the report. The chromium referenced is as hexavalent chromium (76 ug/l) which is compared to the NYS standard for hexavalent chromium of 50 ug/l.

5. **Comment:** The statement (pages ES-11 and 4-114) "because of the low hydraulic gradient at the site and relatively immobile nature of the chemicals present, extensive vertical and horizontal contamination beyond that tested would not be expected" cannot be supported by the present data, and should be deleted. The potential risks posed by the site through the groundwater route should be evaluated after the contaminated soil, sediments, and TCA drum are removed, and post-cleanup monitoring is conducted.

Response: The referenced statement will be deleted.

6. **Comment:** The report states (ES-9) that groundwater in the shallow aquifer probably discharges to the pond; this is contrary to the conclusion in Section 4.5.3 (page 4-88) and is not supported by the pond sediment data, which show decreasing concentrations with depth.

Response: The Navy does not agree that there is a contradiction between these two sections. The reference on page ES-9 deals with groundwater flow only and states that groundwater flow is to the east-northeast and therefore likely discharges into the pond. The conclusion on page 4-88 refers to contaminant transport mechanisms and indicates that groundwater transport of contamination is not a significant pathway at the site. Rather the chemicals detected in the sediments likely result from particle deposition.

Fire Training Area

7. **Comment:** The statement (page ES-16) that "because of the low hydraulic gradient at the site, extensive horizontal contamination beyond that tested would not be expected" should be deleted

Response: Agreed. The statement will be deleted.

- 8 **Comment:** The installation of additional monitoring wells to the south and east of MW05 is essential to defining the region of groundwater contamination and defining remediation needs.

Response. Agreed. The Navy also agrees that additional offsite work is warranted and plans to pursue it when funding becomes available.

Fuel Calibration Area

9. **Comment:** The statement (page ES-20) that "because of the low hydraulic gradient at the site, extensive horizontal contamination beyond that tested would not be expected" should be deleted.

Response Agreed The statement will be deleted.

- 10 **Comment.** The origin and extent of groundwater VOC contamination detected in MW-02 need to be defined.

Response: The Navy believes that the VOC contamination at MW-02 was fairly well defined by the soil gas and temporary monitoring wells. However, the Navy agrees that a data gap exists around the Paint Shop and the Navy will work with Grumman Corporation to fill this gap. See also the response to NYSDECs comment number 4

Fuel Depot Area

- 11 **Comment:** The statement (page ES-20) that "because of the low hydraulic gradient at the site, extensive horizontal contamination beyond that tested would not be expected" should be deleted.

Response: Agreed. The statement will be deleted.